II. Remarks

Claims 9 and 16 are amended herein. Support for the various amendments made to the claims herein may be found throughout the application as filed.

On November 16, 2010, a Final Office Action (hereafter "Final Office Action") was mailed rejecting claims 13-15 and 2-0-22 on the basis of various objections to informalities, and rejecting claims 9, 11-16 and 18-22 on the basis of Section 103 in reference to Japanese Patent No. JP 03-139957 to Kataoka (hereafter "the Kataoka reference") and U.S. Patent No. 5,757,520 to Takashima (hereafter "the Takashima reference").

On March 16, 2010, applicants' attorney and the Examiner conducted a telephone interview and discussed the claims substantially as they are amended herein. The Examiner stated that the claims as amended herein overcame the Kataoka and Takashima references, but that an updated search would have to be conducted to determine the patentability of the claims as they are amended herein. Applicants' attorney thanks the Examiner for taking the time and effort to conduct the interview.

This RCE and Accompanying Response and Preliminary Amendment are filed in response to the interview and the Final Office Action. Applicants respectfully request entry of the preliminary amendments made herein, and examination and allowance of the claims as amended herein.

III. Objections and Rejections in the Final Office Action

In the Final Office Action, the Examiner objected to and rejected claims on the following bases:

(1) Claims 13-15 and 20-22 were objected to because of various informalities, and

(2) Claims 9, 11-16, and 18-22 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over the Kataoka reference in view of the Takashima reference.

Each of the foregoing objections and rejections is responded to below, where each response references the number corresponding to each rejection set forth above.

IV. Responses to Objections and Rejections Made in the Final Office Action

(1) Claims 13-15 and 20-22 as amended herein overcome the objections made thereto.

Claims 13-15 and 20-22 as amended herein overcome the objections made thereto.

(2) Claims 9, 11-16, 18-22 as amended herein are not unpatentable over the Kataoka reference in view of the Takashima reference.

In rejecting claims 9, 11-16, 18-22 as being unpatentable over the Kataoka reference in view of the Takashima reference, the Examiner stated:

> Regarding claim 9, Kataoka disclose a sensor configured to sense a signal of light incident thereon, comprising:
>
> a single dark color sensor circuit (photoelectric conversion element 103, see abstract, figure 1) comprising a dark photodetector configured to provide a dark photocurrent proportional to the current operating temperature, the dark color sensor circuit converting the dark photocurrent into a dark current offset voltage;
>
> an amplifier (differential amplifier 106, see abstract, figure 1) configured to receive the selected color sensor output voltage and the dark current offset voltage and to adjust the selected color sensor output voltage using the dark current offset voltage to cancel the contribution of the dark current offset voltage in the selected color sensor output voltage according to the current operating temperature and thereby provide a color sensor output signal.
>
> Kataoka fails to disclose the sensor is a color sensor comprising:
>
> a Red color sensor circuit comprising a Red photodetector configured to receive incident light thereon and provide a Red photocurrent therefrom in response to the incident light, the Red color sensor circuit being configured to provide a Red output voltage indicative of a Red intensity of a Red spectrum included in the incident light as the Red intensity occurs under a current operating temperature;
>
> a Green color sensor circuit comprising a Green photodetector configured to receive incident light thereon and provide a Green photocurrent therefrom in response to the incident light, the Green color sensor circuit being configured to provide a Green output voltage indicative of a Green intensity of a Green spectrum included in the incident light as the Green intensity occurs under the current operating temperature;
>
> a Blue color sensor circuit comprising a Blue photodetector configured to receive incident light thereon and provide a Blue

photocurrent therefrom in response to the incident light the Blue color sensor circuit being configured to provide a Blue output voltage indicative of a Blue intensity of a Blue spectrum included in the incident light as the Blue intensity occurs under the current operating temperature;

a multiplexer configured to receive the Red, Green and Blue output voltages as inputs thereto and to select one of the Red, Green and Blue output voltages as a selected color sensor output voltage.

However, Takashima discloses a color linear image sensor, which includes R, G, B pixels, the R, G, and B color signals are selected as output color signal by output distribution circuit 5 (figure 1, column 6, lines 29-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Kataoka by the teaching of Takashima in order to provide an image processing using such a color linear image sensor (column 4, lines 8-10).

Regarding claim 11, Kataoka discloses the amplifier is a differential amplifier (differential amplifier 106, see abstract, figure 1).

Regarding claim 12, Kataoka discloses the amplifier is a transimpedance amplifier (differential amplifier 106, see abstract, figure 1).

Regarding claim 13, Takashima discloses the multiplexer selects Red as the selected color sensor output voltage (figure 1, column 6, lines 29-67).

Regarding claim 14, Takashima discloses the multiplexer selects Green as the selected color sensor output voltage (figure 1, column 6, lines 29-67).

Regarding claim 15, Takashima discloses the multiplexer selects Blue as the selected color sensor output voltage (figure 1, column 6, lines 29-67).

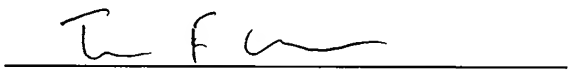
Regarding claims 16, 18-22, claims 16, 18-22 are method claims of apparatus claims 9, 11-15, respectively. Therefore, see Examiner's comments regarding claims 9, 11-15.

During the telephone interview, the Examiner stated that the amendments made to the claims herein overcame the Kataoka and Takashima references, either alone or in combination. Reference to the claims as they are amended herein will show that they now contain many elements and limitations that are nowhere to be found in either reference. Under the well known rule espoused in *Pennwalt*, and which today remains black letter law, an invention which contains elements not found in prior art references, alone or in combination, cannot is obvious. Accordingly, claims 9, 13, 14, 15, 16, 20, 21 and 22 as amended and presented herein are now in condition for allowance pending the results of the Examiner's updated search.

V. Summary

Claims 9, 13, 14, 15, 16, 20, 21 and 22 as amended herein are pending in the present application, and are believed to be in condition for allowance. Examination of the application as amended is requested. The Examiner is respectfully requested to contact the undersigned by telephone or e-mail with any questions or comments that may arise.

Respectfully submitted,
Boon Keat Tan et al.
By his attorney



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